

PSEUDORABIES UPDATE

April 6, 2003, marked a major milestone for the Nebraska swine industry, when the state was granted Stage V (Free) status in the Cooperative State-Federal-Industry Pseudorabies Eradication Program. Nearly 30 years have passed since the first herd was quarantined for pseudorabies in Nebraska (1974). In 1986, the Pseudorabies Control Act was passed, and in 1990 the Nebraska Pseudorabies Control and Eradication Law was enacted, with pseudorabies regulations being developed shortly thereafter. The peak of quarantined herds was reached in the spring of 1990, when 810 herds were quarantined. The last positive herd was discovered in September 2001, and the final quarantine was released in November of 2001.

Credit for this accomplishment must be shared by pork producers and their veterinarians, state and federal animal health staff members, and many allied swine industries who all contributed their time and energy to support this effort.

Swine producers and their veterinarians must continue to practice high levels of biosecurity to maintain our free status. In addition, we will continue to monitor for any new presence of pseudorabies in the state by conducting slaughter surveillance, and by following up on any suspect results. This surveillance will be accomplished by testing of backtagged cull sows and boars at slaughter, at first points of concentration, and by random sampling of slaughter swine at the three slaughter plants in Nebraska. Vaccination will still be allowed for those producers wishing to continue, until all states in the U.S. have reached Stage V.

The BAI would like to take this opportunity to, once again, thank all those veterinarians who have been involved in the pseudorabies program. Your time, efforts, and cooperation have meant a great deal to the success of the eradication program. As always, if you have any pseudorabies questions or comments, please give us a call.

LEDRS Conference

By Dr. Larry L. Williams
State Veterinarian

The 2nd Livestock Emergency Disease Response System (LEDRS) Conference is being planned for September 9-10, 2003, at the Holiday Inn Conference Center in Kearney. The first day will be an update of current foreign animal diseases' responses in the U.S. and training in the Incident Command System. The second day will be an orientation exercise to familiarize LEDRS participants of their roles in an animal disease emergency response.

Currently, we plan to maintain the size of the LEDRS veterinarians to about 100 active veterinarians plus extension educators. We encourage other veterinarians to submit their names and other information on an application form so they can be added to the list as slots become available.

Related to this, is the communication and notification system. We are in the process of investigating emergency notification systems to automatically notify persons on the list by their preferred route, whether it be e-mail, fax, or telephone. We should have a form available on our web site soon for those who wish to download it or

submit it electronically. Anyone interested in knowing more about the LEDRS program should contact the BAI office.

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West Nile Virus

The warmer weather reminds us of the West Nile Virus (WNV) issues that surface with the reintroduction of mosquitos. The Nebraska Department of Agriculture's vaccination recommendations are included in this newsletter.



Colorado State University WNV Retrospective Study Review and Analysis

A total of 1,478 laboratory confirmed cases of WNV infections occurred in Colorado and Nebraska in the summer of 2002. The goal of this study was to determine the long-term clinical outcome of these cases, as well as to better characterize the clinical signs and treatments given.

Of the 536 cases interviewed by the team conducting the study, the following statistics were posted:

- The mean age of horses confirmed to be infected with WNV was 9 years of age, but there was a broad age range among these horses (3 months to 35 years). Of the affected horses, 9.4% were intact males, 44.2% were geldings, and 46.3% were females;
- Survival status was available for 482 clinically affected horses - 71.4% reportedly survived and the remaining 28.6% died or were euthanized. Horses that died were on average older than those that survived) average = 10.8 vs. 8.9 years;
- Case fatality rate among the WNV cases that had been vaccinated a minimum of one time prior to the onset of clinical signs was 20.3% compared to 36.6% of unvaccinated animals;
- Only 13 cases were fully vaccinated based on current recommendations from the vaccine manufacturer, meaning the equines had two vaccinations separated by three to six weeks followed by adequate time for the vaccine to be fully effective before the arrival of vector season. Of these, the survival status of 12 is known and all 12 lived.
- Reportedly, 37.6% became recumbent during the course of the disease and were unable to rise. Reported case fatality was approximately 60% among horses that became recumbent;
- Most common clinical signs reported included ataxia (73%), weakness (69%), lethargy and depression (61%), and muscle tremors, and fasciculating (60%);
- The most common treatment administered was flunixin meglumine (Banamine®) 73%, 52% received DMSO, and phenylbutazone was administered to 22% of the horses. Oral or intravenous fluids were administered to 39% of horses and 12% received vitamins.

- Of surviving animals, there were 82% considered fully recovered by their owner at the time of the telephone interview.

This study was not designed to evaluate the efficacy of vaccination for preventing WNV infection or decreasing the likelihood of developing clinical disease. While some horses that were reportedly vaccinated according to a manufacturer's recommendations developed clinical disease, immunity provided by the vaccination can be overwhelmed even when vaccines are very effective (100% protection against disease from any vaccine is not expected). Vaccinated horses were less likely to die or be euthanized which suggests there is a measurable benefit associated with vaccination and that vaccination is recommended as a prophylactic measure. It is also important to employ other preventive measures, including mosquito control, when horses are at risk of exposure to WNV. Owners should consult their veterinarian to develop a disease prevention plan for WNV.

The complete report can be seen at www.agr.state.ne.us.

WEST NILE VIRUS VACCINATION RECOMMENDATIONS

ADULT HORSES:

- Primary vaccination series requires two doses of vaccine, three to six weeks apart;
- Takes approximately four weeks after the 2nd vaccination to develop maximum immunity.

FOALS:

- Two doses of vaccine are required in the primary series;
- If mare previously vaccinated, 1st dose at three months and 2nd dose three to six weeks later;
- If mare not vaccinated, 1st dose at one to two months of age and 2nd dose three to six weeks later;
- Many veterinarians are recommending a 3rd dose in all foals, similar to recommendations in Eastern and Western Equine Encephalitis.

RE-VACCINATION:

- Horses should receive a booster three to four weeks prior to vector season;
- If the vector season exceeds four months and viral load is high, horse(s) should probably receive an additional booster.

Exotic Newcastle Disease

The United States Department of Agriculture (USDA) developed an aggressive eradication process in western states which are dealing with the outbreak of Exotic Newcastle Disease (END) in poultry. A nationwide alert was issued upon discovery of the disease, and personnel were recruited from several states to assist in the efforts. To date, several Nebraska USDA Veterinary Service employees worked on site in the eradication program. Dr. Dane Henry, Randy Johnson and Lee Odenbach, from the Bureau of Animal Industry (BAI), each dedicated 23 days in California to the project.

END is a contagious and fatal viral disease affecting all species of birds. END is so virulent that many birds die without having developed any clinical signs. The disease can infect and cause death, even in vaccinated poultry. Mortality is up to 90 percent of exposed birds. It is spread primarily through direct contact between healthy birds and the bodily discharges of infected birds. END can also be spread easily by mechanical means.

The only way to eradicate END from commercial poultry is by destroying all infected flocks and imposing strict quarantine and in-depth surveillance programs. Effective biosecurity practices are key to the end and prevention of further outbreaks.

The Bureau of Animal Industry (BAI) has distributed over 10,000 brochures in English, Spanish, and Vietnamese to increase awareness statewide. Additional information on END can be obtained from the NDA web site at www.agr.state.ne.us/division/bai/bai.htm.

Veterinary Sentinel Project

*By Dr. Larry L. Williams
State Veterinarian*

The Nebraska Veterinary Sentinel Project is about to get underway. A regional meeting involving Kansas, Nebraska, South Dakota, and North Dakota is being planned, and, after the meeting, we should have a better understanding of what is possible and what is not. Kansas State has taken the lead in working with another research company to develop a reporting and tracking system which relies on reporting syndromes, rather than names of diseases. The concept emulates the reporting system used by the medical profession in some areas. At the LEDRS conference, we asked for names of clinics who would be interested in participating in the project. Twenty-two clinics responded, and we plan to make our selection from this group. However, as we plot the locations on a map we find we have a void in the Sandhills area going as far east as Norfolk. **In order to provide more uniform coverage, we would like to hear from practitioners in that area who would be interested in participating.**

A small planning group has been selected to assist in choosing clinics and establishing objectives and goals for the project. Shortly after the regional meeting mentioned above, we will contact participants to confirm their interest and plan an initial meeting of the group by telephone conference.

The primary objective will be to improve the animal disease reporting system, through the effective use of new communications systems and technology, including software to monitor, track, and report disease trends in the state. In addition, the group will be an important resource in the development of regulations for disease reporting.

Department Web Page

We have contracted with a company to update the Department's web page. In addition to a new look and more user friendly menus, it will have an emergency section which will house emergency and biosecurity information; it will also have a section which will be "password protected" to receive and deliver information to the LEDRS group.
www.agr.state.ne.us/division/bai

Rabies in Nebraska

Submitted by Dennis Leschinsky

As of May 8, there have been 49 rabid animals tested in Nebraska. The animals include 40 skunks, 2 dogs, 1 cat, 2 cows, 1 horse, and 3 foxes. The counties with positive animals are Clay, Fillmore, Franklin, Hall, Jefferson, Knox, Merrick, Pawnee, Saline, Seward, and York. The Kansas State University's Rabies Lab maintains current data on their web site at <http://www.vet.ksu.edu/depts/rabies/nebraska.htm>.

By comparison last year, 3 of the 27 animals that tested positive for rabies were skunks. Only one animal tested positive for rabies in the first three months of 2002. Last year's total was the highest recorded since 1989. The low numbers of animals testing positive for rabies in the 1990s looks similar to the numbers in the 1970s. Then 93 animals tested positive in 1980, 198 in 1981, and 123 in 1982 before slowly tapering downward. Skunks were the predominant animal testing positive during the last peak.

Please remember to offer rabies vaccine to your clients' pets. Vaccinating pets remains the cornerstone of preventing human rabies. In one situation, earlier this year, a positive dog exposed approximately 10 persons in York, including the veterinarian euthanizing the dog. The average cost of post-exposure prophylaxis was about \$3,000 in that situation for those who had not been previously vaccinated.

Due to budget constraints, HHSS will be able to pay for rabies testing if there is human exposure. There may be

special circumstances in which the state will pay for testing without human exposure. Submitting veterinarians will need to call the Communicable Disease Program at (402) 471-2937 to get a reference number to write on the test requisition. Requisitions without the reference number will be charged \$40.

Johne's Disease Update

Recently, Congress appropriated \$20 million to USDA to be used for Johne's disease over the next five years. A significant portion of the funds will go to the states to be used for educational efforts, enhancing laboratory capacity and encouraging producer participation in Johne's disease programs. Money will be distributed through the regional offices of USDA/APHIS/VS. The BAI has worked with the local VS office to apply for funds. Part of our proposal involves paying for all Johne's testing, including costs of fecal cultures. We are also proposing to pay veterinarians to conduct risk assessments and to develop herd plans for their clients who participate in the Johne's program. Education for producers and veterinarians is also included in our proposal. We will keep you updated as more is known about the approval of funds and how you can be involved in the program.



Chronic Wasting Disease



In the fall newsletter, it was reported that BAI staff had assisted VS staff with the depopulation of 1,090 captive cervids in the Chronic Wasting Disease (CWD)-endemic area of the western Panhandle. Results of testing of those animals showed one CWD-positive elk.

The herd of origin of the elk was within 20 miles of the heavily infected captive cervid herd in Sioux County and in the area where wild deer were found to be positive for CWD.

The Nebraska Game and Parks Commission reports that 4,279 deer were tested for CWD statewide during the 2002 hunting season, with 12 deer testing positive. All of the positives came from the endemic area of the Panhandle where positives had previously been found. Six positives were from Sioux County, three from Morrill County and three from Kimball County.

The Department of Agriculture web site at www.agr.state.ne.us has information on CWD including maps showing states in the U.S. which have had captive herds with CWD, states which have had wild cervids positive, and Nebraska maps showing the location of CWD-positive captive herds, CWD positives in the wild, and

the endemic area in the state. To view this information, go to the Department web site, click on Animal Industry, then select Foot-and-Mouth/Mad Cow (BSE)/Chronic Wasting Diseases.

Classical Swine Fever Surveillance Plan

Foot-and-mouth disease has received a lot of press and media attention in the recent past, but the threat of Classical Swine Fever (CSF), also known as hog cholera, exists too, due to its presence in many parts of the world. CSF, like foot-and-mouth disease, is a highly contagious viral disease and its early detection and reporting are critical.

As a result of its Animal Health Safeguarding Review, the USDA determined there is a need for the creation of an enhanced, integrated, comprehensive animal health surveillance system to increase surveillance for endemic diseases, to be able to rapidly detect emerging diseases, and to more rapidly detect foreign animal diseases. In keeping with the concept of enhancing surveillance, and in an effort to keep the United States and its territories free of CSF, the Classical Swine Fever Surveillance Plan was developed. CSF surveillance would help to identify CSF infection in swine as quickly as possible, should the disease enter the United States. Early detection would simplify containment and eradication of the disease.

Each state, through the State Veterinarian and Area Veterinarian-in-Charge, is to develop a sampling plan, establishing risk categories for the likelihood of the introduction of the CSF virus in the resident or imported swine populations. The surveillance plan is federally funded, with states receiving funding dependent upon the perceived risk. Twenty states, including Nebraska, have been classified as having high-risk status.

Once the Nebraska CSF Surveillance Plan has been developed, veterinary field officers from the Bureau of Animal Industry (BAI) and USDA/APHIS/VS will be contacting veterinarians in their area to explain the surveillance plan, how federal funds will be utilized, and how they can become involved. Stay tuned.

BRUCELLOSIS LAB NOTICE:

The state Brucellosis Lab has been targeted as a potential budget cut in these times of economic strain. When the budget is finalized, the Bureau will inform the state's veterinarians of the outcome and of available options for testing at different laboratories if necessary. A decision should be forthcoming by late June 2003. Thank you for your patience with this matter.

2003 Bureau Statute and Regulation Issues

For the 2003 legislative session, additions or updates the BAI will be addressing are as follows:

In summary:

- LB 158 - A control and eradication program to be developed for scrapie in sheep;
- LB 159 - Changes in the pseudorabies control and eradication program;
- LB 160 - Changes in livestock health certificate and animal importation provisions;
- LB 180 - Change the provisions relating to dead animal disposal.
- LB 233 - Licensure required for animal control facilities and shelters;
- LB 273 - Dog and Cat housing standards for commercial breeders further developed; and
- LB 274 - Requirement for dog and cat dealers to supply purchasers with spaying and neutering information proposed; pet shops require licensing.

New Program Manager

In April, Mr. Rick Herchenbach accepted the program manager position for the Nebraska Commercial Dog and Cat Operators Inspection Program. Rick lives in Columbus, Nebraska, and was formerly a field inspector for the Bureau of Animal Industry. He will be implementing the program, to include new 2003 legislative changes, from his Columbus office



and statewide field coverage.

"I have always appreciated inspection work, especially working with the people," Rick has stated. "Since taking the position, I have already had the pleasure of working with individuals in the dog and cat industry, and I look forward to further developing good working relationships with them. I hope we can continue to assist each other in implementing a productive program."

For inquiries on the Dog and Cat Program, Rick can be reached at (402) 563-1875 or (402) 429-2680.

Change in Missouri Grazing Policy

The Nebraska Department of Agriculture (NDA), Bureau of Animal Industry (BAI), has rescinded the issuance of grazing permits for cattle moving from Nebraska to Brucellosis Class A states. The change will require test eligible cattle to be tested **prior** to entering, or returning to, Nebraska from Missouri. Brucellosis Class A states are Missouri and Texas.

All cattle entering Nebraska are required to meet Nebraska import requirements prior to entering the state. Following is a summary of the Nebraska importation requirements for cattle moving to Nebraska from a Brucellosis Class A state:

- All test-eligible age cattle are required to have official individual identification and that identification must be listed on a Certificate of Veterinary Inspection (CVI) issued within 30 days prior to the movement by an accredited veterinarian.
- Test-eligible cattle must be tested negative for brucellosis within 30 days **prior** to entering, or returning, to Nebraska.
- All cattle under test-eligible age, including offspring traveling with their dam, will need to be accompanied by a CVI.

If you have any questions, please contact the BAI at (402) 471-2351.

WHEN COMPLETING CERTIFICATE OF VETERINARY INSPECTIONS (CVIs):



Please note the following reminder of requirements on CVIs, so we may minimize the number of certificates being returned to us with errors:

1. The following are required on each certificate: signature, date, and veterinarian code. Some states also require the veterinarian's phone number.
2. Be sure to contact the state of destination for animals being shipped out of Nebraska, as permit numbers are required for many types of movement. Some states require permit numbers for almost every animal movement.
3. Completed copies of the CVIs are due into the state veterinarian's office within 30 days of issuance.

News from Other States

South Dakota

- PRV status as of April 2003 was elevated to Stage V.

Iowa

- PRV status as of April 2003 was elevated to Stage IV.

California

- TB status has been lowered from accredited-free to a modified accredited advanced status due to the detection of two TB-affected herds.

Colorado

- The Colorado state wildlife and agricultural divisions will share equal authority in the approval process for importation of cervid animals into the state. Please note that approval will be required from both entities. For inquiries on this change, you can call (303) 239-4161.

This newsletter is available in other formats for persons with disabilities upon request. For an alternate format or for additional information on topics in this publication, please call the Nebraska Department of Agriculture at (402) 471-2341.

TDD users can contact the Department by first calling the Nebraska Relay System. Telephone (800) 833-7352 and asking the operator to call (402) 471-2341.

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